

Abstract

A dual-mode display system, for applications such as viewfinders/displays in a digital still camera or video camcorder, may include a single spatial light modulator microdisplay that 5 can be used both to provide a virtual image at a viewing location, such as near-eye viewing port, and to provide a real image that can be projected onto a surface such as a projection screen. The projection screen may be on an exterior surface of the camera, it may be extendable from the device such as with a camcorder, or it may be an external screen such as a on a wall, desk, piece of paper, or a traditional projection screen. The optical paths for the near-eye and projection 10 modes may be entirely different, with only the SLM in common, or they may be largely or entirely common paths. Different light sources may be used for the two modes, or it may be the same light source. The display system may switch between the two modes by selecting one of two different light sources or by moving an optical element, such as a lens or reflective surface.